

Appln No.: 09/960,665
Amendment Dated: October 5, 2005
Reply to Office Action of July 12, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-34. (canceled)

35. (new) A chemical compound comprising first and second hsp-binding moieties which bind to the pocket of hsp90 with which ansamycin antibiotics bind leading to degradation in proteasomes of a subset of proteins requiring hsp90 for conformational maturation, said binding moieties being connected to one another by a linker, wherein the first and second hsp-binding moieties each retain the ability in the chemical compound to bind to the pocket of hsp90 and lead to degradation in proteasomes of a subset of proteins requiring hsp90 for conformational maturation.

36. (new) The chemical compound of claim 35, wherein at least one of the hsp-binding moieties is geldanamycin, and the linker is connected to the 17-carbon of the geldanamycin.

37. (new) The chemical compound of claim 36, wherein the linker has a length of 4 to 7 carbon atoms.

38. (new) The chemical compound of claim 36, wherein the linker is a substituted carbon chain.

39. (new) The chemical compound of claim 38, wherein the linker is a substituted carbon chain incorporating a secondary or tertiary amine.

40. (new) The chemical compound of claim 39, wherein the linker is an N-methyl amino linker.

41. (new) The chemical compound of claim 35, wherein the linker is a substituted carbon chain.

42. (new) The chemical compound of claim 41, wherein the linker is a substituted carbon chain incorporating a secondary or tertiary amine.

43. (new) The chemical compound of claim 42, wherein the linker is an N-methyl amino linker.

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44. (new) A method for destruction of cells expressing a HER-family tyrosine kinase, comprising administering to the cells a chemical compound comprising first and second hsp-binding moieties which bind to the pocket of hsp90 with which ansamycin antibiotics bind leading to degradation in proteasomes of a subset of proteins requiring hsp90 for conformational maturation, said binding moieties being connected to one another by a linker, wherein the first and second hsp-binding moieties each retain the ability in the chemical compound to bind to the pocket of hsp90 and lead to degradation in proteasomes of a subset of proteins requiring hsp90 for conformational maturation.

45. (new) The method of claim 44, wherein at least one of the hsp-binding moieties is geldanamycin, and the linker is connected to the 17-carbon of the geldanamycin.

46. (new) The method of claim 45, wherein the linker has a length of 4 to 7 carbon atoms.

47. (new) The method of claim 46, wherein the linker is a substituted carbon chain.

48. (new) The method of claim 47, wherein the linker is a substituted carbon chain incorporating a secondary or tertiary amine.

49. (new) The method of claim 38, wherein the linker is an N-methyl amino linker.

50. (new) The method of claim 44, wherein the linker is a substituted carbon chain.

51. (new) The method of claim 50, wherein the linker is a substituted carbon chain incorporating a secondary or tertiary amine.

52. (new) The method of claim 51, wherein the linker is an N-methyl amino linker.

53. (new) A method for treating cancer in a patient suffering from cancer, comprising administering to the patient a therapeutic composition comprising a chemical compound comprising first and second hsp-binding moieties which bind to the pocket of hsp90 with which ansamycin antibiotics bind leading to degradation in proteasomes of a subset of proteins requiring hsp90 for conformational maturation, said binding moieties being connected to one another by a linker, wherein the first and second hsp-binding moieties each retain the ability in the chemical compound to bind to the pocket of hsp90 and lead to degradation in proteasomes of a subset of proteins requiring hsp90 for conformational maturation.

54. (new) The method of claim 53, wherein the cancer is an HER-positive cancer.

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55. (new) The method of claim 54, wherein at least one of the hsp-binding moieties is geldanamycin, and the linker is connected to the 17-carbon of the geldanamycin .

56. (new) The method of claim 55, wherein the linker has a length of 4 to 7 carbon atoms.

57. (new) The method of claim 56, wherein the linker is a substituted carbon chain.

58. (new) The method of claim 57, wherein the linker is a substituted carbon chain incorporating a secondary or tertiary amine.

59. (new) The method of claim 58, wherein the linker is an N-methyl amino linker.

60. (new) The method of claim 54, wherein the linker is a substituted carbon chain.

61. (new) The method of claim 60, wherein the linker is a substituted carbon chain incorporating a secondary or tertiary amine.

62. (new) The method of claim 61, wherein the linker is an N-methyl amino linker.

63. (new) The method of claim 53, wherein the cancer is breast cancer.

64. (new) The method of claim 53, wherein the cancer is ovarian cancer.

65. (new) The method of claim 53, wherein the cancer is pancreatic cancer.

66. (new) The method of claim 53, wherein the cancer is gastric cancer.